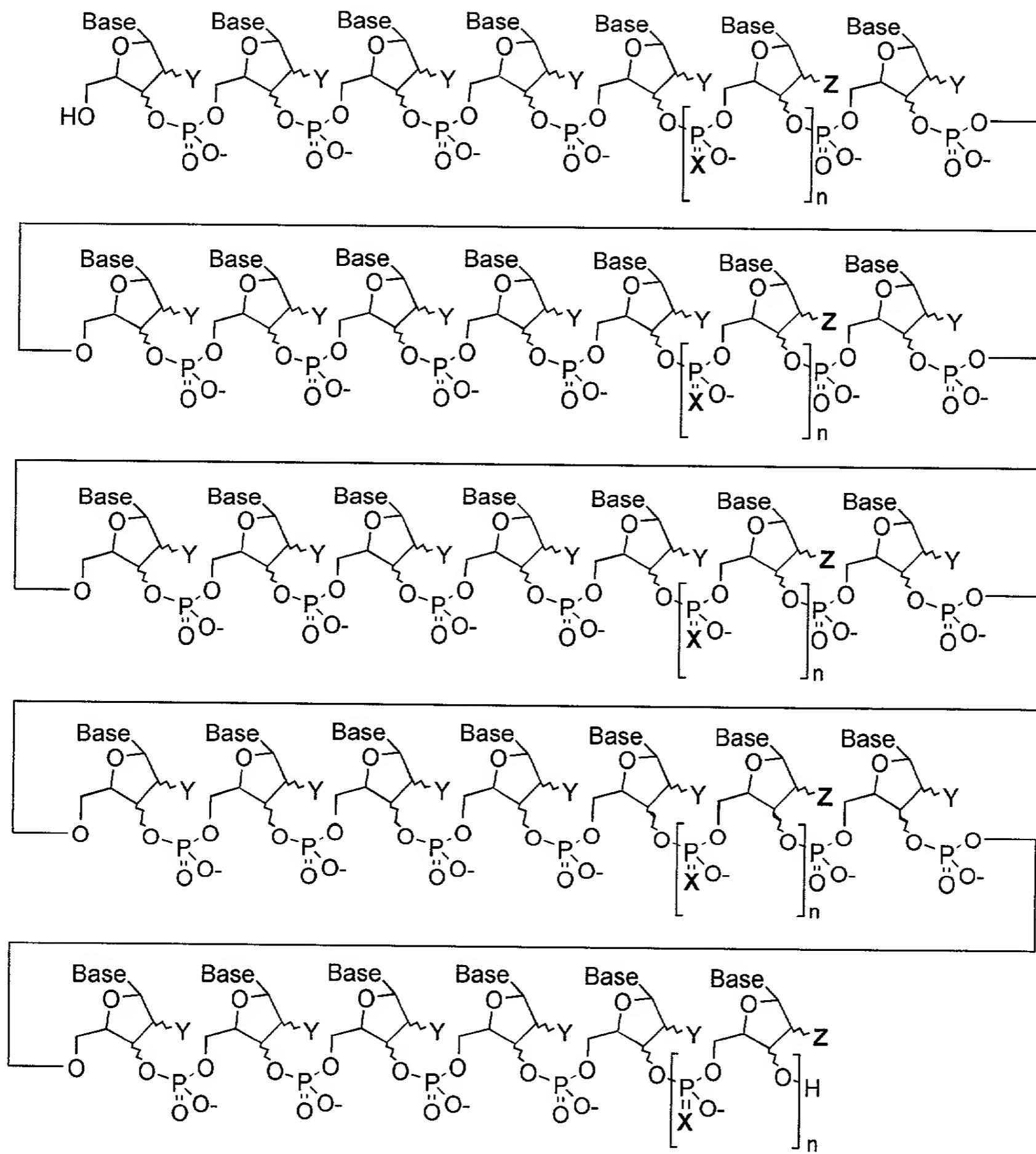
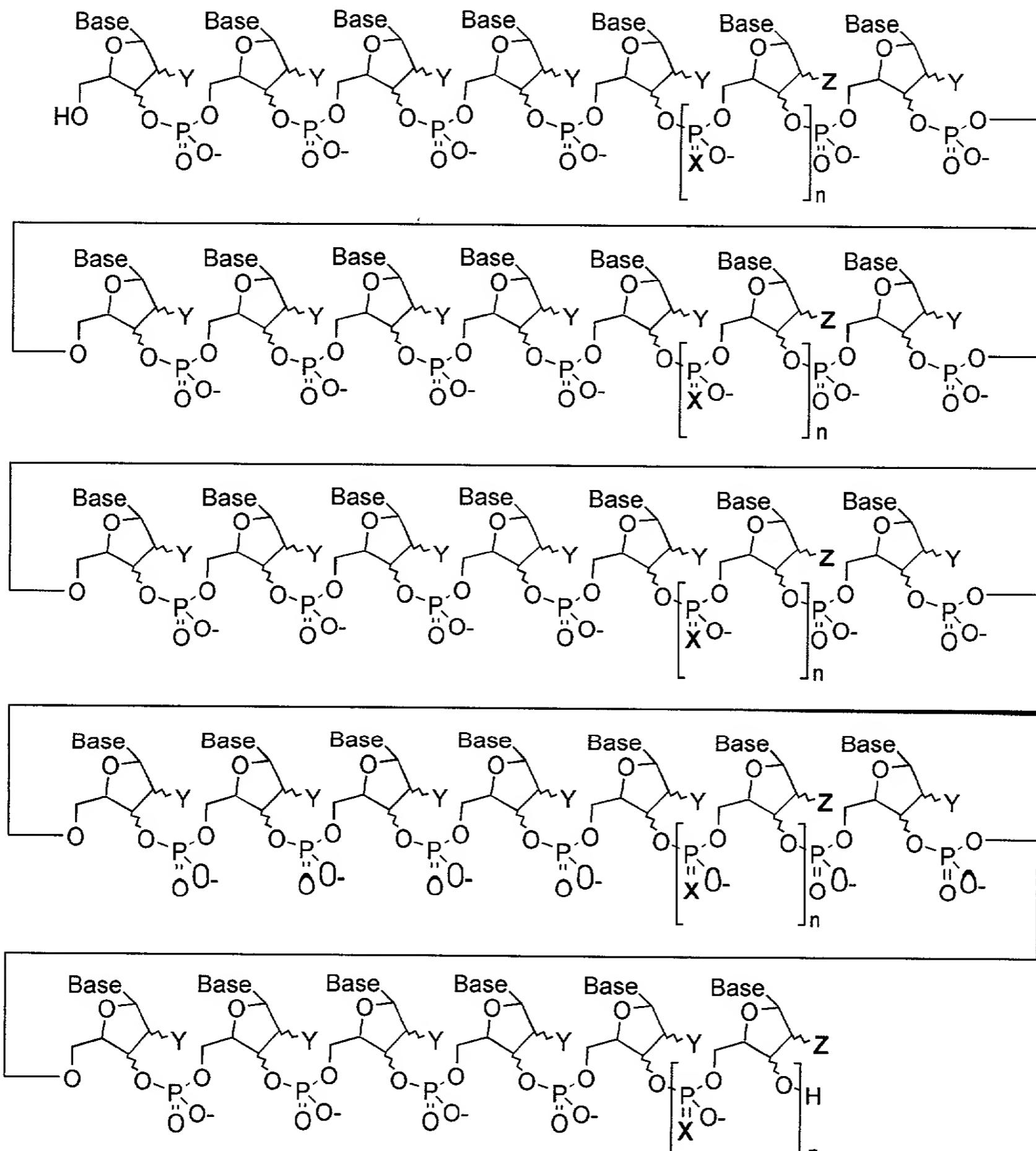


FIGURE 1



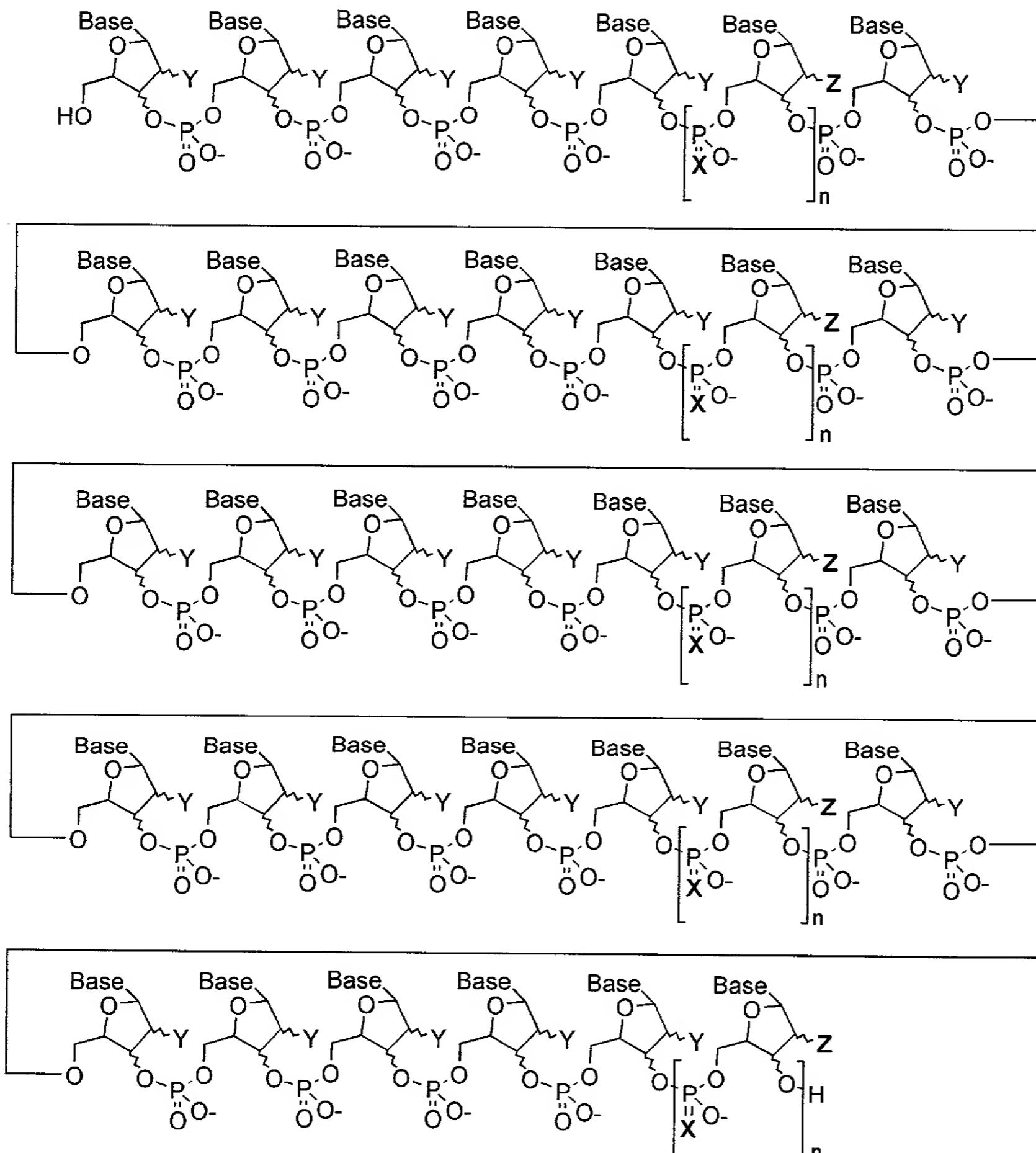
araCpO -2'OMeCpS 1 $X = S$ $Y = \beta\text{-OH}$ $Z = \alpha\text{-OMe}$ Base = Cytosine $n = 1,2,3,4$

FIGURE 2



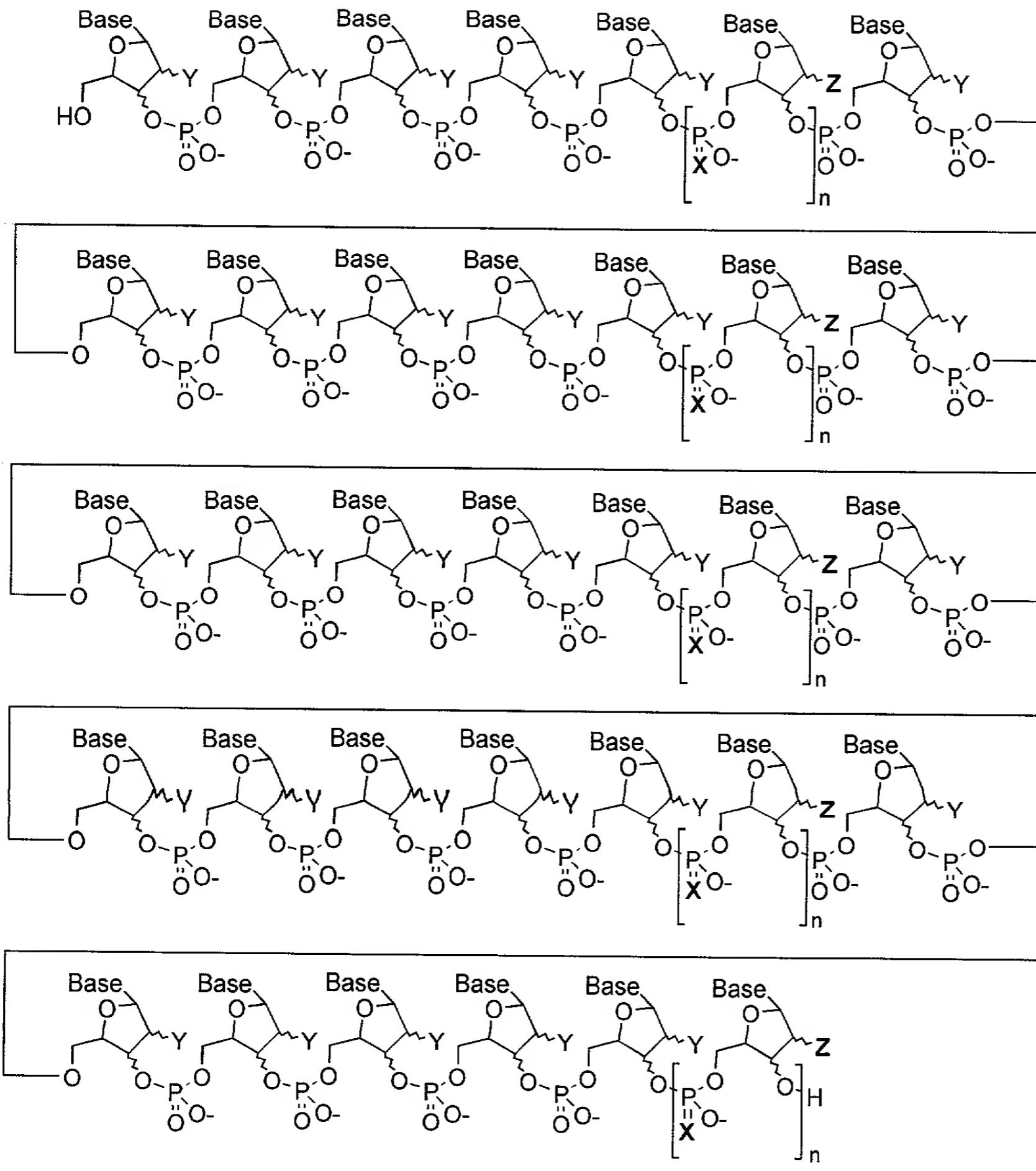
araCpO-2'OMeCpO 2 $X = \text{O}$ $Y = \beta\text{-OH}$ $Z = \alpha\text{-OMe}$ Base = Cytosine $n = 1,2,3,4$

FIGURE 3



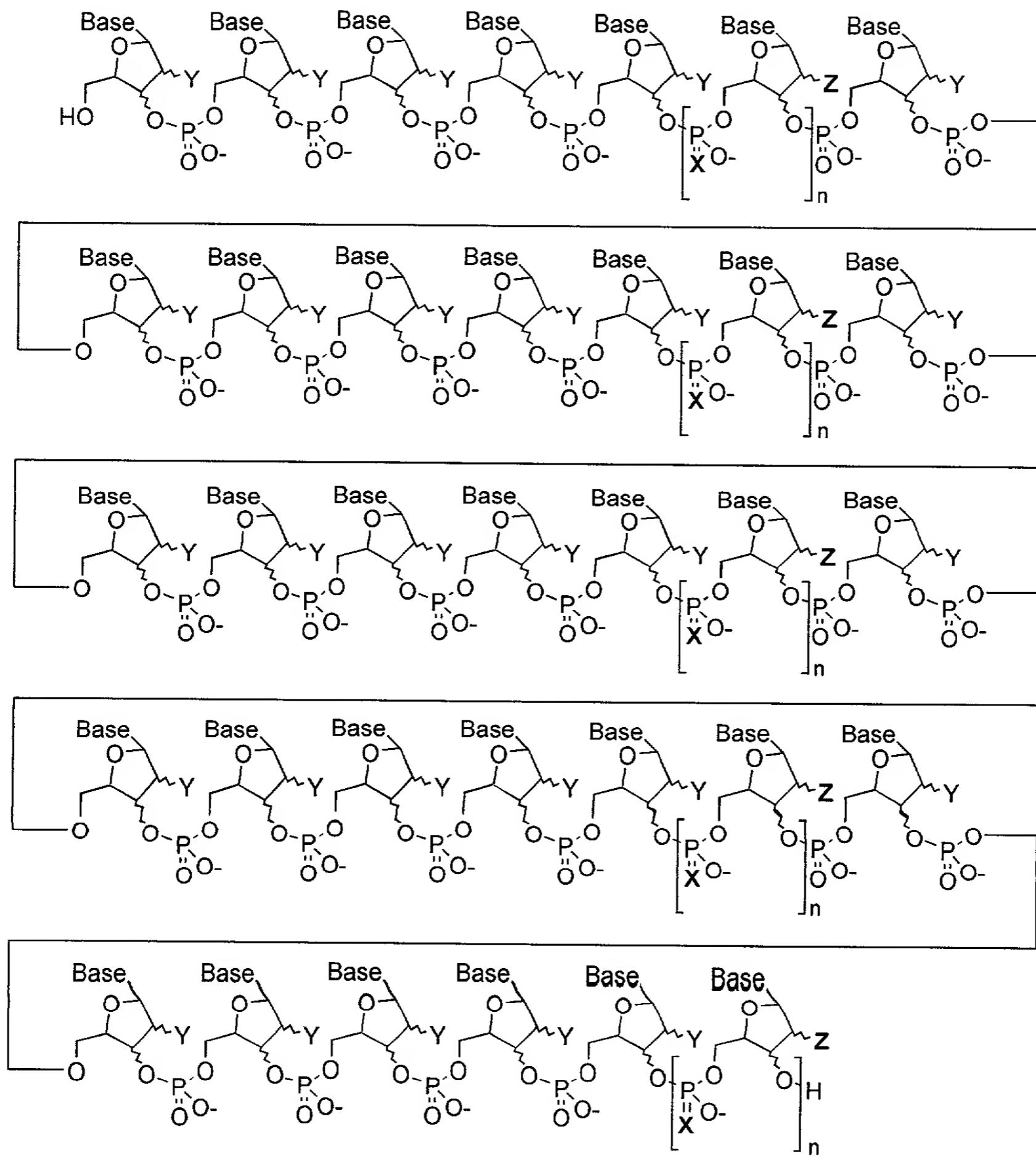
araCpO-2'OmearaCpO 3 $X = \text{O}$ $Y = \beta\text{-OH}$ $Z = \beta\text{-OMe}$ Base = Cytosine $n = 1,2,3,4$

FIGURE 4



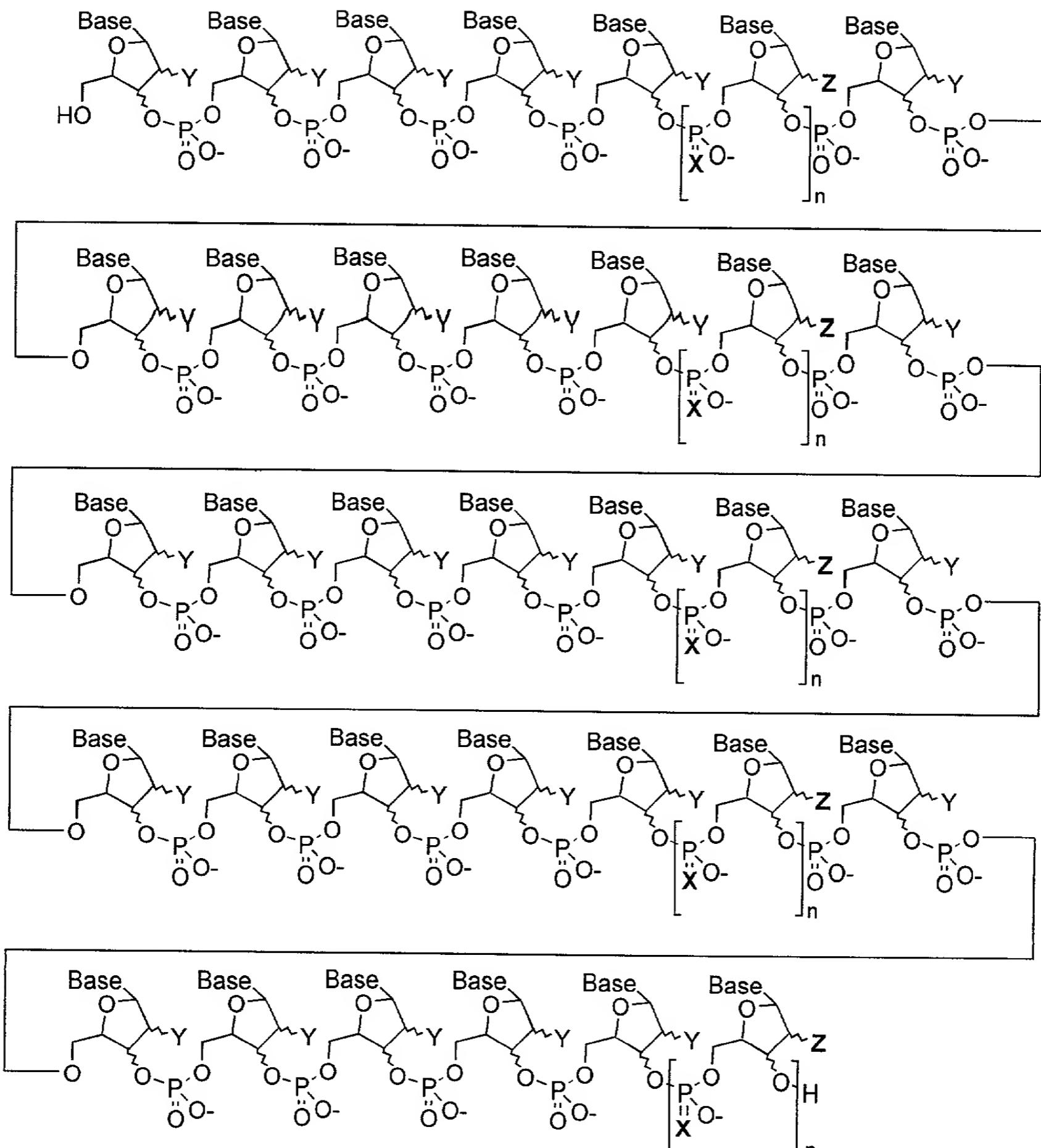
2ClApO-2ClApS 4 X = S Y = H Z = H Base = 2-Cl-Adenine n = 1,2,3,4

FIGURE 5



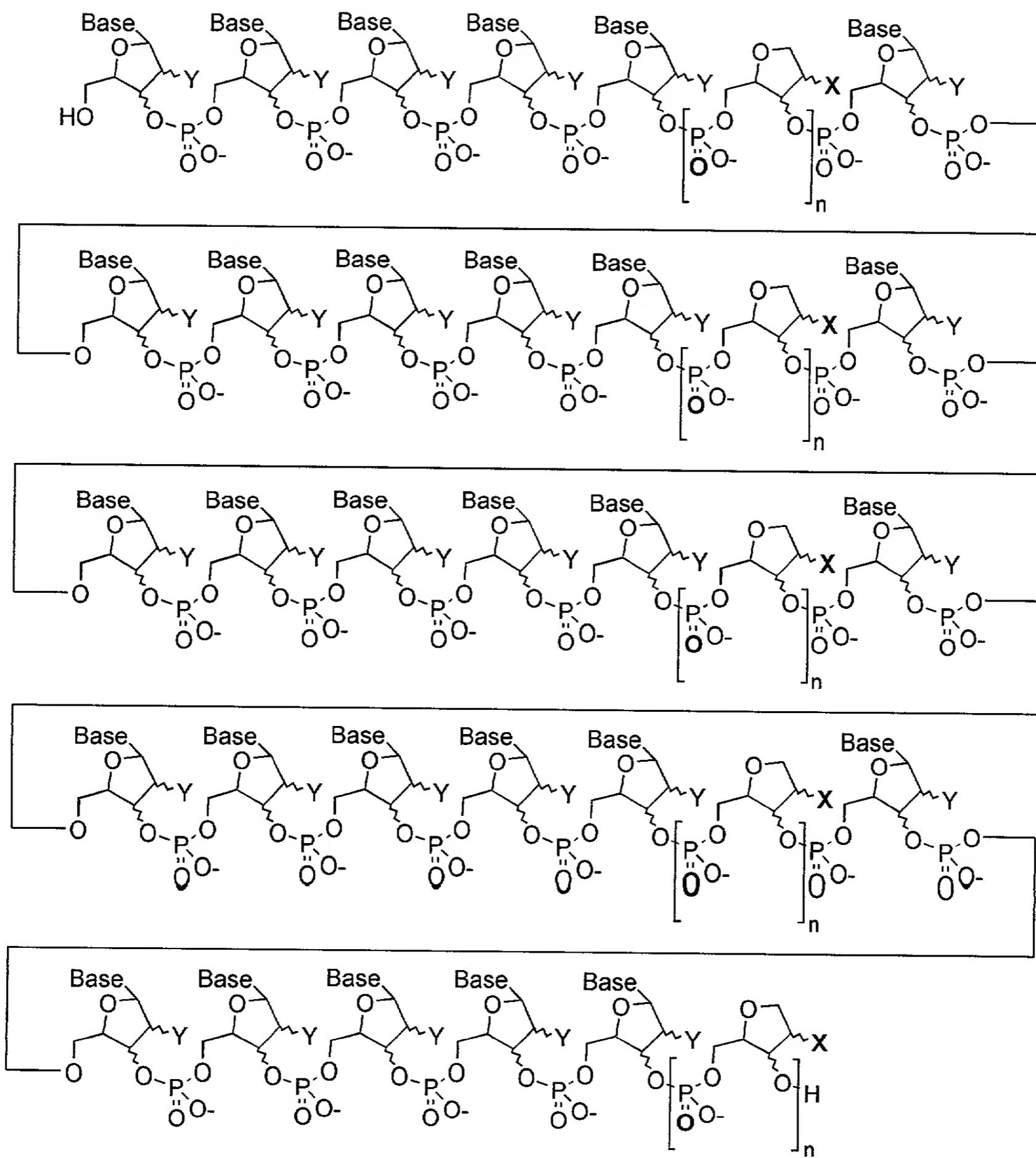
2FaraApO-2FaraApS 5 $X = S$ $Y = \beta-OH$ $Z = \beta-OH$ Base = 2-F-Adenine $n = 1,2,3,4$

FIGURE 6



5FdUpO-5FdUpS 6 $X = S$ $Y = H$ $Z = H$ Base = 5-Fluorouracil $n = 1,2,3,4$

FIGURE 7



Abasic 7 X = α -OR Y = H Base = 5-Fluorouracil etc. n = 1,2,3,4

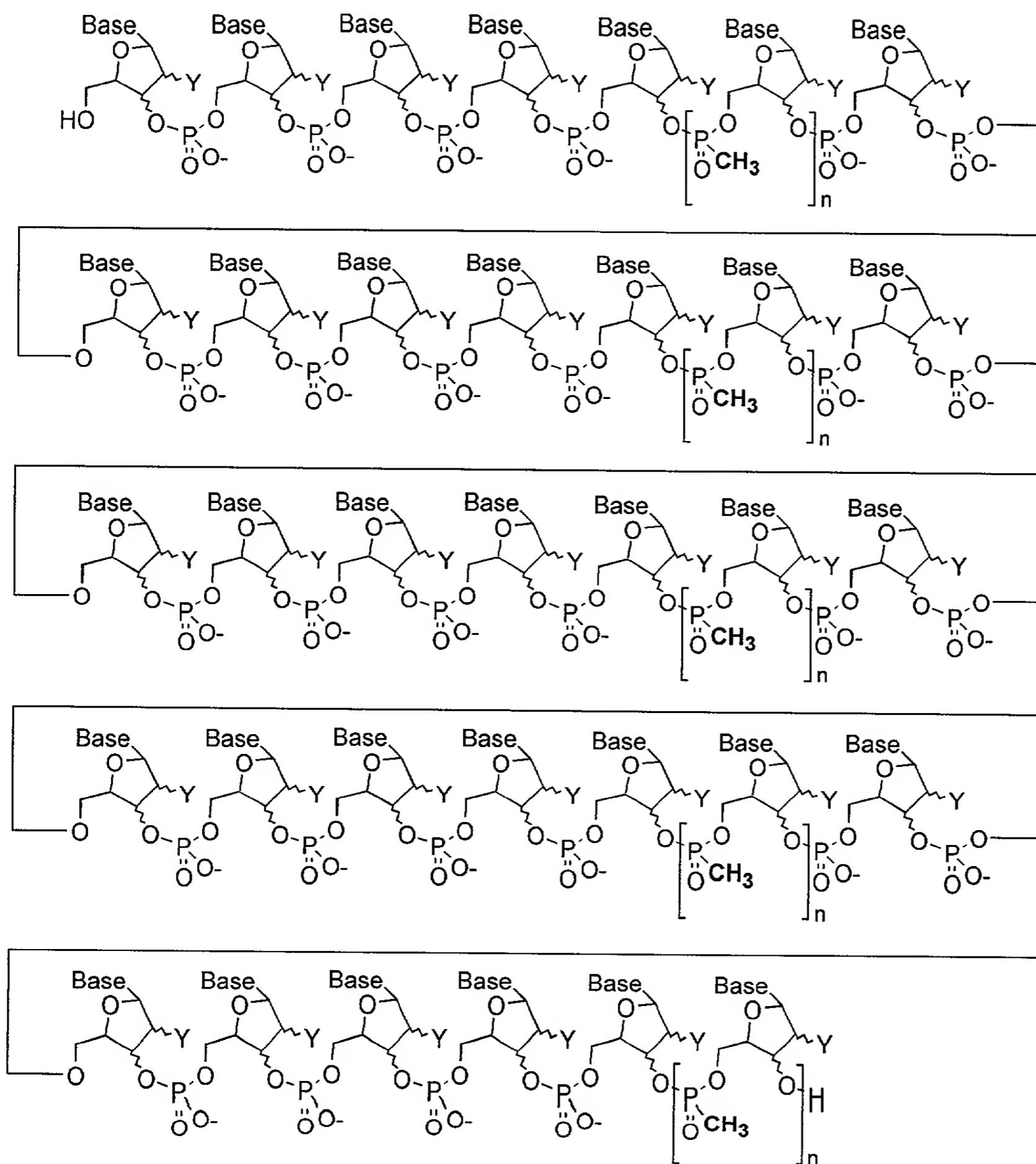
 8 X = α -OR Y = β -OH Base = Cytosine n = 1,2,3,4

 9 X = α -OR Y = β -OH Base = 2-F-Adenine n = 1,2,3,4

 10 X = α -OR Y = H Base = 2-Cl-Adenine n = 1,2,3,4

R = Me, Et, iPr, allyl, alkyls (C₂-35) containing one or more O, N, S atom, methoxyethyl, dimethylaminoethyl,

FIGURE 8



Methylphosphonate

- | | | | |
|----|----------|----------------------------|-------------|
| 11 | Y = H | Base = 5-Fluorouracil etc. | n = 1,2,3,4 |
| 12 | Y = β-OH | Base = Cytosine | n = 1,2,3,4 |
| 13 | Y = β-OH | Base = 2-F-Adenine | n = 1,2,3,4 |
| 14 | Y = H | Base = 2-Cl-Adenine | n = 1,2,3,4 |

FIGURE 9

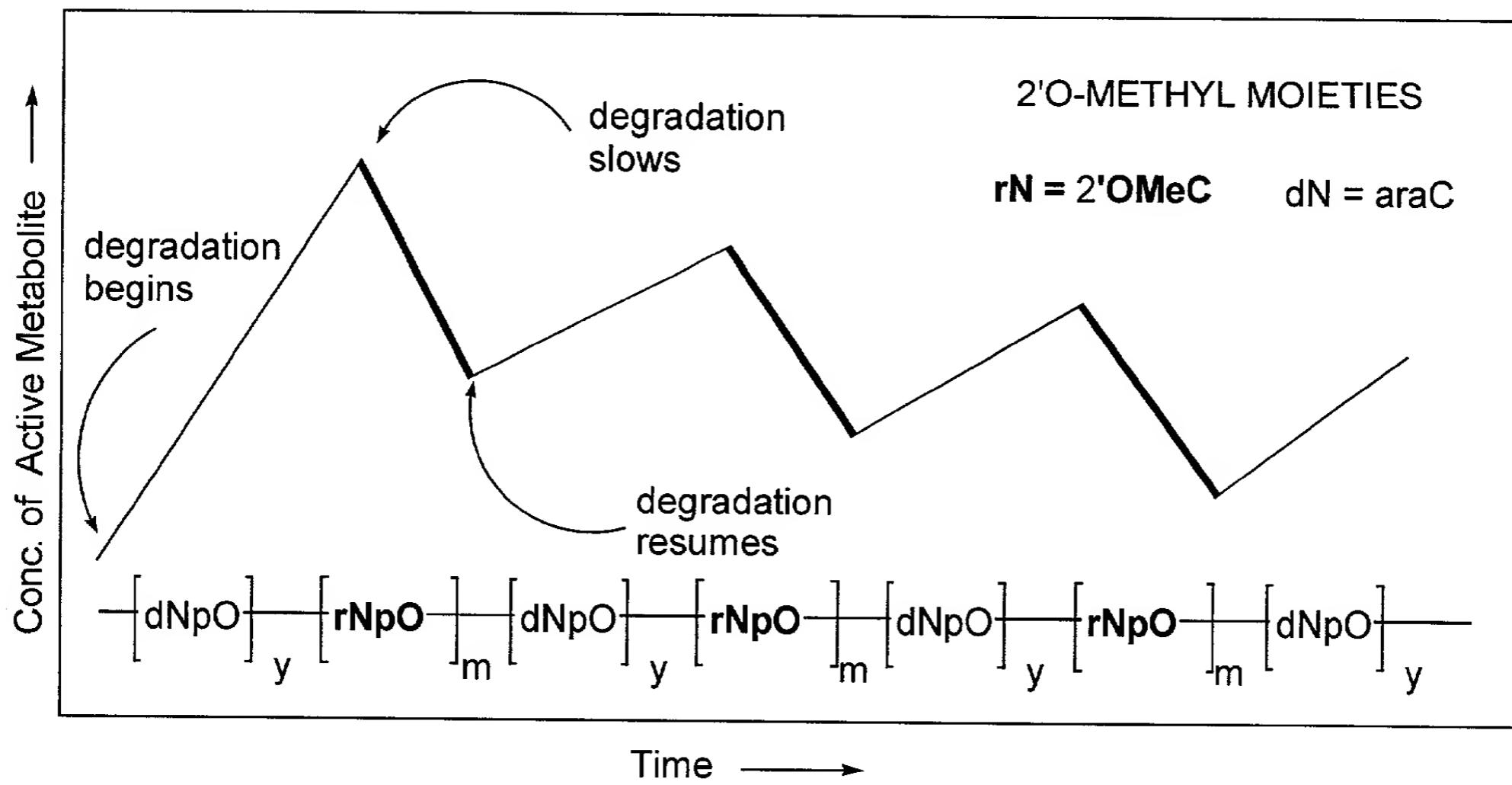


FIGURE 10

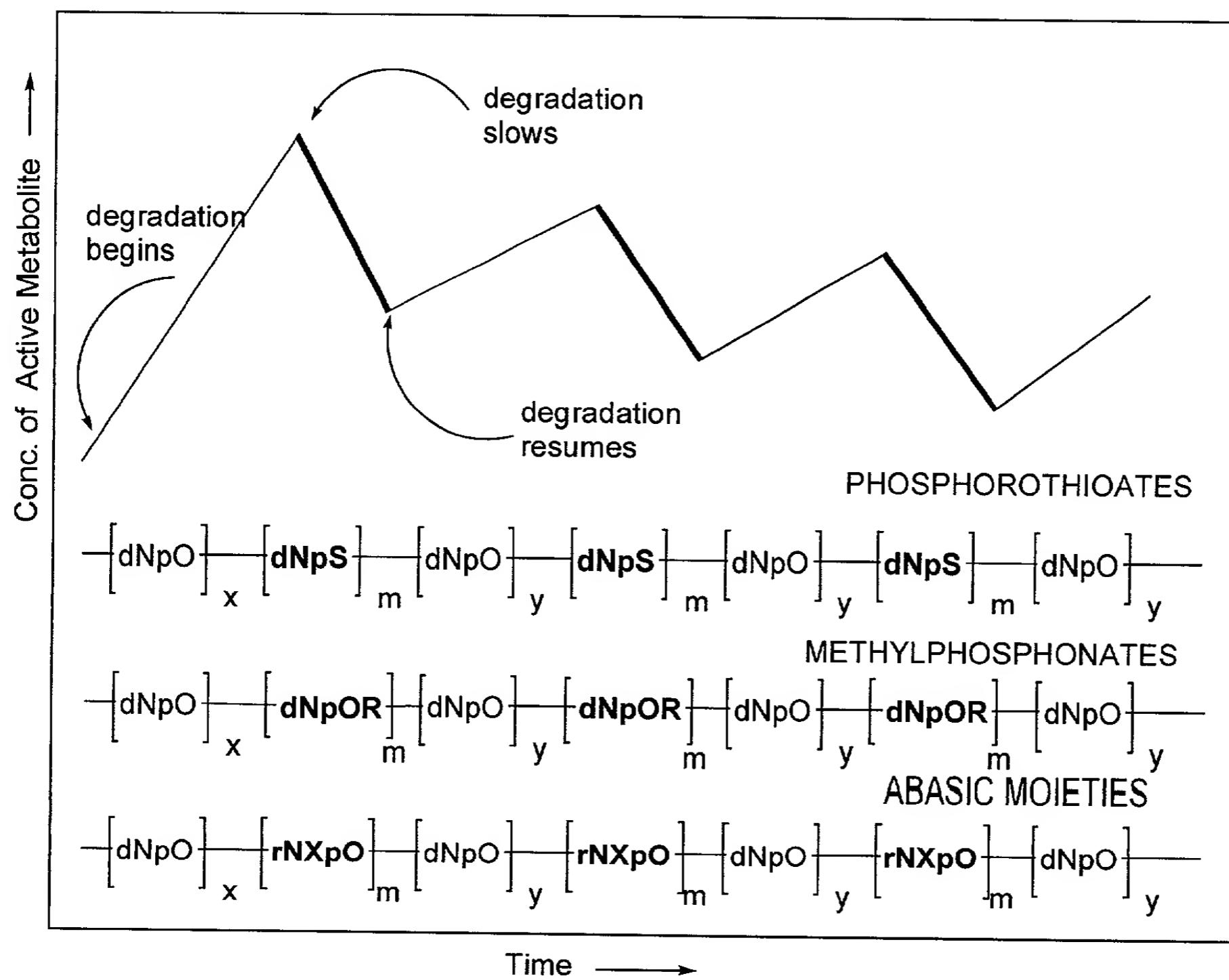
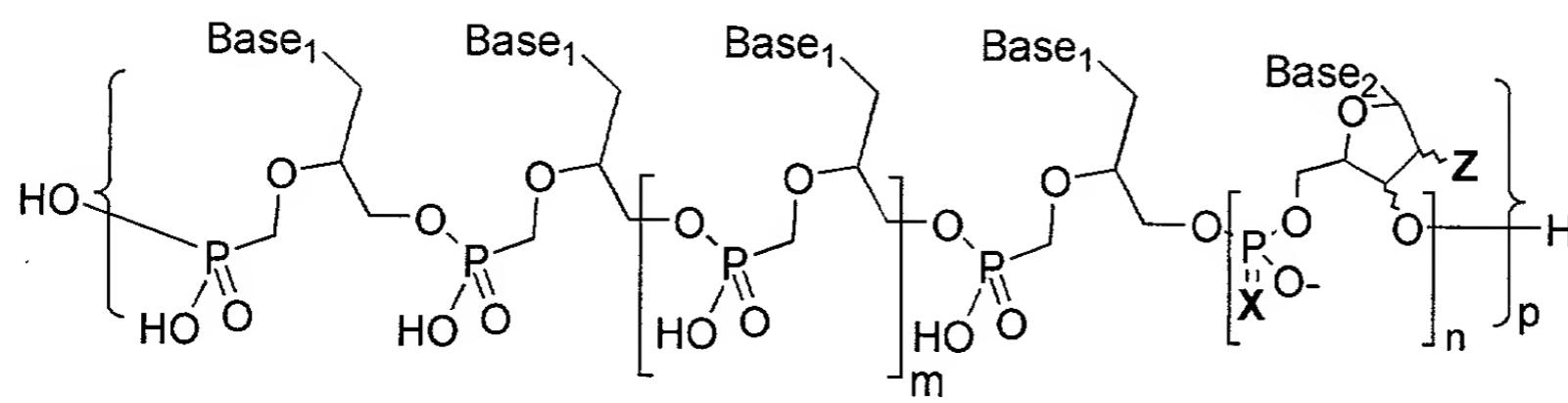


FIGURE 11



$\text{X}=\text{O}, \text{S}$ $\text{Z}=\text{OR}$ $m, n, p = 1-10$

Base_1 = cytosine, adenine, 2,6-diaminopurine

Base_2 = cytosine, adenine, 2,6-diaminopurine, guanine, uridine etc